December 6, 2001

MEMORANDUM

TO: Katherine Kelly, Program Administrator
State Air Quality Program

FROM: Steve Ogle, E.I.T., Associate Engineer
Process Engineering, Technical Services Division

THROUGH: Bill Rogers, Title V Permit Program Coordinator
Air Quality Division

SUBJECT: ***TECHNICAL ANALYSIS FOR TIER I OPERATING PERMIT***
P-9503-033-1, PG&E Gas Transmission – Northwest
Compressor Station No. 3, Eastport, Idaho
Tier I Operating Permit (No. 021-00013)

Permittee:	PG&E Gas Transmission – Northwest
Permit Number:	021-00013
Standard Industrial Classification:	4922
Description:	Natural Gas Pipeline Compressor Station
Kind of Products:	Gas Production and Distribution
Responsible Official:	Robert T. Howard, Vice President and General Manager
Person to Contact:	Jeff Pollock, Field Environmental Engineer
Telephone Number:	(509) 533-2834
# of Full-time Employees	18
Area of Operation:	41.89 acres
Facility Classification:	A
County:	Boundary
Air Quality Control Region:	063
UTM Coordinates:	560.6, 5423.7
Exact Plant Location:	Hwy. 95, approximately 2.2 miles south of Eastport, Idaho

TABLE OF CONTENTS

PUBLIC COMMENT

The permit has been issued as draft and has proceeded through a 30-day public comment period from May 2, through June 1, 2001. A public hearing was not requested. PG&E Gas Transmission - Northwest (PG&E GT-NW) provided the only public comments regarding the air quality aspects of the draft permit. The comments are addressed in a document entitled *STATE OF IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY RESPONSE TO PUBLIC COMMENTS ON DRAFT AIR QUALITY TIER I OPERATING PERMIT FOR PG&E GAS TRANSMISSION – NORTHWEST, EASTPORT IDAHO COMPRESSOR STATION*, dated August 29, 2001 (refer to Appendix B of this technical memorandum).

The U.S. Environmental Protection Agency (EPA) was sent the proposed draft permit, the technical analysis memorandum, and the public comment responses after the public comment period for the 45-day review period on October 11, 2001. The Idaho Department of Environmental Quality (DEQ) did not receive any comments from EPA during the 45-day review period; therefore, the final permit was issued to PG&E GT-NW on December 21, 2001.

The states of Montana and Washington are located within 50 miles of this source and their air quality may be affected by emissions from this source.

LIST OF ACRONYMS

acfm	Actual Cubic Feet Per Minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
BACT	Best Available Control Technology
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DEQ	Idaho Department of Environmental Quality
DLE	Dry Low Emissions
dscf	Dry Standard Cubic Feet
EF	Emission Factor
EPA	Environmental Protection Agency
gpm	Gallons Per Minute
gr	Grain (1 lb = 7,000 grains)
gr/scf	Grains Per Standard Cubic Feet
HAPs	Hazardous Air Pollutants
hp	Horsepower
IDAPA	numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	Kilometer
lb/hr	Pound Per Hour
lb/MMscf	Pounds Per Million Standard Cubic Feet
MACT	Maximum Achievable Control Technology
MMBtu	Million British Thermal Units
MMscf/yr	Million Standard Cubic Feet Per Year
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	Nitrogen Dioxide
NO_X	Oxides of Nitrogen
NSPS	New Source Performance Standards
OP	Operating Permit
PGT	Pacific Gas Transmission Company
PM	Particulate Matter
PM_{10}	Particulate Matter with an Aerodynamic Diameter of 10 Micrometers or Less
ppm	Parts Per Million
ppmvd	Parts Per Million By Volume on A Dry Basis
PSD	Prevention of Significant Deterioration
PTC	Permit To Construct
PTE	Potential To Emit
Rules	*Rules For The Control of Air Pollution in Idaho*
SCC	Source Classification Code
scf	Standard Cubic Feet
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TSP	Total Suspended Particulates
T/yr	Tons Per Year
µm	Micrometers
VOC	Volatile Organic Compound

1. PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this Tier I operating permit (OP) in accordance with IDAPA 58.01.01.362, *Rules for the Control of Air Pollution in Idaho (Rules)*.

The staff of DEQ hase reviewed the information provided by PG&E GT-NW regarding the operation of their facility located near Eastport, Idaho. This information was submitted based on the requirements of the Tier I OP in accordance with IDAPA 58.01.01.300.

Based on the information submitted, DEQ drafted a Tier I OP for PG&E GT-NW. The permit was submitted for public comment and affected states review for Montana and Washington. No public hearing was requested or held. After public comment, the proposed permit was developed and forwarded to EPA for their review in accordance with IDAPA 58.01.01.366. DEQ received no comments or objections from EPA during the 45-day review; therefore, the final permit was developed and issued to PG&E GT-NW.

2. SUMMARY OF EVENTS

On August 31, 1998, DEQ received a Title V Major Facility (Tier I) OP application from PG&E GT-NW, formerly known as Pacific Gas Transmission Company (PGT), for their natural gas compressor station located near Eastport, Idaho. The application was determined complete on October 30, 1998.

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I OP:

- Tier I Air Operating Permit Application (April 24, 1995; PGT; Eastport, Idaho);
- Tier I Air Operating Permit Application Addendum (August 31, 1998; PG&E GT-NW; Eastport, Idaho);
- Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, January 1995, Office of Air Quality Planning and Standards, US Environmental Protection Agency;
- 40 CFR Part 70;
- Guidance developed by the EPA and DEQ;
- Title V permits issued by other jurisdictions; and
- Documents and procedures developed in the Title V Pilot Operating Permit program.

4. REGULATORY ANALAYSIS – GENERAL FACILITY

4.1 Facility Description

4.1.1 General Process Description

PG&E GT-NW operates a network of compressor stations that transmit natural gas from Canada to California along an underground pipeline system. The pipeline enters the United States in northern Idaho, continues through southeastern Washington and central Oregon, and enters California at its northern border. The network consists of 12 compressor stations located along the pipeline, all of which are designed for remote unattended operation from PG&E GT-NW's Gas Dispatch Center in Portland, OR. Each compressor station consists of one or more turbine-driven compressors that move the natural gas through the pipeline. The turbines use the natural gas in the pipeline as fuel and provide energy for the compressors to induce the flow of the gas.

The Eastport compressor station, or Compressor Station No. 3, currently uses two turbines to power the compressors. The turbines are referenced as Unit 3A and Unit 3B. Unit 3A is a Cooper-Rolls Coberra 125 gas-fired turbine. Per the permit application, Unit 3A was constructed in 1969 and has not been modified or reconstructed since. The 1969 construction date pre-dates Prevention of Significant Deterioration (PSD); consequently, Unit 3A is not subject to PSD permitting requirements. For the purposes of Title V permitting requirements, it is, however, subject to generally applicable regulatory requirements such as opacity and grain loading. Unit 3B is a Cooper-Rolls Coberra 6000 gas-fired turbine. DEQ issued permit to construct (PTC) No. 021-00013 on October 7, 1992, for the construction of Unit 3B. That permit was most recently re-issued on June 14, 2000, as an amended permit.

Emissions from this facility are primarily the result of natural gas combustion in the turbines. The facility's potential to emit (PTE) is limited by PTC No. 021-00013, which imposes operational limitations on the amount of fuel combusted in Unit 3B. Carbon monoxide (CO) and oxides of nitrogen (NO_x) are the regulated criteria air pollutants for which this facility is a Title V Major Facility (IDAPA 58.01.01.008.10.c). The remaining criteria air pollutants are not significant (IDAPA 58.01.01.006.92). Table 1 summarizes the facility's PTE. The emission factors used to estimate the PTE are referenced.

TABLE 1.

POTENTIAL TURBINE EMISSIONS FROM COMPRESSOR STATION No. 3		
CRITERIA AIR POLLUTANT	UNIT 5C T/yr[a]	EMISSION FACTOR REFERENCE
PM_{10}[b]	5.7	Manufacturer's Data
CO[c]	143	Source test results for full-load operating conditions
VOC[d]	3.07	Source test results for full-load operating conditions
NO_x[e]	197	Source tests results for full-load operating conditions
SO_2[f]	3.81	Based on a conservative 1 grain/scf[g] estimate

[a]tons per year
[b]particulate matter with an aerodynamic diameter of 10 microns or less
[c]carbon monoxide
[d]volatile organic compounds
[e]oxides of nitrogen
[f]sulfur dioxide
[g]grains per standard cubic foot

Hazardous air pollutants (HAPs) are also emitted when natural gas is combusted. The potential to emit HAPs is inherently limited by the operational limit imposed by PTC No. 021-00013 on the amount of fuel combusted in Unit 3B. Based on that limitation, this facility does not emit or have the potential to emit 10 tons per year (T/yr) of any single HAP, nor does it emit or have the potential to emit 25 T/yr of any combination of HAPs. Because this facility does not meet or exceed these threshold levels, it is not a Title V Major Facility for HAPs (IDAPA 58.01.01.008.10.a.i and .ii), and, therefore, is not subject to Title V operating permit requirements for HAP emissions. Table 2 summarizes the potential HAP emissions from this facility.

TABLE 2.

POTENTIAL HAP EMISSIONS FROM COMPRESSOR STATION No. 3		
HAZARDOUS AIR POLLUTANT	UNIT 5C	EMISSION FACTOR
	T/yr[a]	*lb/MMscf*[b]
Benzene	1.04E-02	0.0079[c]
Formaldehyde	2.5	1.8941[c]
Toluene	9.54E-02	0.0726[d]
Xylene	3.80E-02	0.0289[d]
Acetaldehyde	4.86E-02	0.0370[d]
TOTAL HAP EMISSIONS	**2.68**	

[a]tons per year
[b]pounds per million standard cubic feet
[c]source testing
[d]AB2588 Combustion Emission Factors, Ventura County Air Pollution Control District

In addition to the turbines, this facility includes a boiler and an emergency electrical generator. The boiler is used for space heating and the emergency generator is used to provide backup electrical power in the event that electrical power from the local utility company is interrupted. As with the turbines, the boiler and emergency generator use natural gas from the pipeline as fuel.

4.1.2 Facility Classification

This facility is a major facility as defined in IDAPA 58.01.01.008.10.c, but it is not a designated facility as defined in IDAPA 58.01.01.006.27. This facility is subject to federal New Source Performance Standards (NSPS) in accordance with 40 CFR Part 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), but it is not subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) in accordance with 40 CFR §61, or to Maximum Achievable Control Technology (MACT) for Source Categories in accordance with 40 CFR Part 63. The Standard Industrial Code defining the facility is 4922 (Gas Production and Distribution - Natural Gas Transmission) and the facility classification is A.

4.1.3 Area Classification

Compressor Station No. 3 is located along Highway 95, approximately 2.2 miles south of Eastport, Idaho, in Boundary County. Boundary County is located in AQCR 63 and Zone 11. This area is designated attainment or unclassifiable for all regulated criteria air pollutants. There are no Class I areas within ten kilometers of the facility.

4.1.4 Permitting History

3/20/92 PG&E GT-NW, formerly PGT, was issued PTC No. 0280-0013 for a natural gas compressor station located near Eastport, ID;

4/17/92 The permit was amended;

10/7/92 The permit was modified;

12/27/94 The permit was amended and the permit number was changed to 021-00013;

2/21/97 The permit was amended;

6/14/00 The permit was amended and contains the currently effective enforceable permit conditions.

4.2 Facility-wide Applicability Requirements

4.2.1 Fugitive Dust Emissions - [IDAPA 58.01.01.650-651]

4.2.1.1 Requirement

In accordance with IDAPA 58.01.01.650-651, the permittee is required to reasonably control all fugitive dust emitting sources to prevent particulate matter from becoming airborne.

4.2.1.2 Compliance Demonstration

To ensure that fugitive dust emissions are reasonably controlled, the permittee is required to: (1) monitor and record the frequency and the method(s) used to reasonably control fugitive dust emissions; (2) maintain records of all fugitive dust complaints; and (3) conduct quarterly, facility-wide inspections of all potential fugitive emissions sources.

For each complaint, the permittee is responsible to assess its validity and to take any corrective action necessary to control the fugitive dust emissions. If numerous complaints are logged, the quarterly monitoring schedule can be adjusted when the permit is reissued at the end of its five-year life. Quarterly is the longest time period allowed by EPA for the purposes of monitoring.

For each facility-wide inspection, the permittee is required to assess the conditions existing at the time fugitive emissions are present (if observed) and any corrective action taken in response to the fugitive emissions. This information must be recorded. Monitoring on a frequency shorter than quarterly is not required or recommended because the access road to the facility is paved and the roadways within the facility boundary are covered with gravel. It is anticipated that fugitive emissions will not be problematic.

4.2.2 Control of Odors - [IDAPA 58.01.01.775-776]

4.2.2.1 Requirement

IDAPA 58.01.01.776 states that: "*No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids to the atmosphere in such quantities as to cause air pollution.*" This condition is currently considered federally enforceable until such time it is removed from the State implementation Plan (SIP), at which time it will be a state-only enforceable requirement.

4.2.2.2 Compliance Demonstration

The permittee is required to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable. Each record is to contain: the date a complaint was received and a description of the complaint; the permittee's assessment of the validity of the complaint; any corrective action taken; and the date the corrective action was taken.

In general, 'expeditiously as practicable' is interpreted to mean taking corrective action within 24 hours of receiving a valid odor complaint. However, it is understood that depending on the circumstances, a time period longer than 24 hours may be necessary.

4.2.3 Visible Emissions - [IDAPA 58.01.01.625]

4.2.3.1 Requirement

IDAPA 58.01.01.625 states that: *"(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined . . ."* This provision does not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reason(s) for the failure of the emissions to comply with the requirements of this rule.

4.2.3.2 Compliance Demonstration

Compliance with IDAPA 58.01.01.625 is demonstrated through the exclusive use of natural gas at this facility. Historical source test data indicates that natural gas-fired combustion sources, including natural gas-fired turbines, exhibit no visible emissions. For this reason, it is recommended that quarterly visible emissions inspections of this facility be conducted by the permittee to demonstrate compliance with IDAPA 58.01.01.625. Monitoring on a more frequent basis is not recommended or required by the OP.

However, in the event visible emissions exceed the standard, the permittee must take appropriate corrective action as expeditiously as practicable. Moreover, the permittee must report the exceedance in accordance with the excess emissions rules in IDAPA 58.01.01.130-136 and also report the exceedance in the facility's annual compliance certification. The quarterly monitoring schedule will be adjusted upon permit renewal if monitoring shows noncompliance with IDAPA 58.01.01.625.

For each quarterly inspection, the permittee is required to maintain the following: (1) records of the results of each visible emissions inspection which must include the date of each inspection; (2) a description of the permittee's assessment of the conditions existing at the time visible emissions are present; (3) any corrective action taken in response to the visible emissions; and (4) the date corrective action was taken.

4.2.4 Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset, and Breakdown - [IDAPA 58.01.01.130-136]

4.2.4.1 Requirement

The permittee must comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, upset, and breakdowns.

4.2.4.2 Compliance Demonstration

The methods and procedures for demonstrating compliance are contained within the text of the permit. No further clarification is necessary in this document.

4.2.5 Reporting

4.2.5.1 Requirements

Pursuant to IDAPA 58.01.01.322.08, the permittee is required to conduct sufficient reporting to assure compliance with all the terms and conditions of the Tier I OP. Submittal of such reports for any required monitoring is required at least every six months beginning six months after issuance of the Tier I OP and every six months thereafter. All reports must be certified in accordance with IDAPA 58.01.01.123.

Permit deviations including, but not limited to, excess emissions must be reported promptly by the permittee. If the deviation is an excess emission, the report must be submitted in accordance with the requirements of Sections 130-136. For all other deviations, the permittee is required to submit reports at least every six months. All instances of deviations from Tier I OP requirements, including monitoring, recordkeeping, and reporting, must be clearly identified. The report must describe the probable cause of such deviations and any corrective actions or preventative measures taken. All reports must be certified in accordance with IDAPA 58.01.01.123.

4.2.5.2 Compliance Demonstration

The methods and procedures for compliance demonstration are contained within the text of the Facility-wide Conditions. No further clarification is necessary here.

4.2.6 Recordkeeping

4.2.6.1 Requirements

The permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.07.a and b. In addition, the permittee shall retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period. These records shall be made available to DEQ representatives upon request.

4.2.6.2 Compliance Demonstration

The methods and procedures for compliance demonstration are contained within the text of the Facility-wide Conditions. No further clarification is necessary here.

4.2.7 Chemical Accident Prevention Provisions - 40 CFR Part 68

4.2.7.1 Requirement

Any facility that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR §68.115 must comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR Part 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR §68.130; or
- The date on which a regulated substance is first present above a threshold quantity in a process.

This facility is not currently subject to the requirements of 40 CFR Part 68. However, should the facility ever become subject to the requirements of 40 CFR Part 68, then it must comply with the provisions contained in 40 CFR Part 68 by the time listed above.

4.2.7.2 Compliance Demonstration

The methods and procedures for compliance demonstration are contained within the text of the Facility-wide Conditions. No further clarification is necessary here.

4.2.8 Testing

4.2.8.1 Requirement

Performance testing is required by the permit. All testing must follow the requirements set forth in the Facility-wide Conditions.

4.2.8.2 Compliance Demonstration

The methods and procedures for compliance demonstration are contained within the text of the Facility-wide Conditions. No further clarification is necessary here.

4.2.9 NSPS Subpart A Applicability

4.2.9.1 Requirement

Only Unit 3B is subject to 40 CFR Part 60, Subpart GG. In addition to the applicable performance standards mandated by Subpart GG, the facility must also comply with applicable sections of 40 CFR Part 60, Subpart A (NSPS General Provisions). Upon review of Subpart A, it was determined that the following sections apply to this facility:

60.4	Address;
60.7	Notification and Recordkeeping;
60.8	Performance Tests;
60.11	Standards and Maintenance;
60.12	Circumvention;
60.14	Modification; and
60.15	Reconstruction.

4.2.9.2 Compliance Demonstration

Each section is explicit concerning fulfillment of the requirements. Subsequently, no further clarification is necessary here.

4.2.9.3 Non-Applicable Requirements

Sections 60.1, 2, 3, 5, 6, 9, 10, 13, 16, 17, and 19 do not need to be included in the Title V permit, as they are for informational purposes only. However, the applicability of the remaining sections and subsections had to be determined.

60.7(a)(1-3, 6) - notification of initial startup of a facility. The permittee provided notification to EPA of the initial startup of this facility. This requirement has been fulfilled.

60.7(a)(7) - continuous opacity monitoring system. This facility is not required to use a continuous opacity monitoring system; therefore, the requirement does not apply.

60.7(c), (d), (e), and (f) - continuous monitoring system. This facility is not required to use a continuous opacity monitoring system; therefore, the requirement does not apply.

60.7(g) and (h) - notification required by another state or regulatory agency, and clarification or inapplicability of certain provisions of Part 60. Not to be considered generally applicable permit conditions.

60.8(a) - initial performance testing. The permittee has satisfied this requirement.

60.11(e) - initial compliance determination. The permittee has satisfied this requirement.

60.13 - monitoring. Continuous emissions and monitoring systems are not required to be installed; consequently, this section does not apply.

60.18 - general control device requirements. Subpart GG does not reference Section 60.18, therefore, it does not apply to the affected facilities.

60.19 - general notification and reporting requirements. Section provides guidance for notification and reporting requirements.

4.3 Alternative Operating Scenarios

The permittee may install, maintain, and operate one or more replacement turbines (or turbine parts) at this facility; however, emissions, throughput, and rated (hp)power must be consistent with existing units. Replacement turbines must undergo an initial performance test to measure NO_x emissions in accordance with the test measures and procedures specified in 40 CFR §60.8, 40 CFR §60.335, and IDAPA 58.01.01.157.

The permittee must notify DEQ of each turbine replacement at least 30 days before the change-out, or in emergency situations, within 48 hours after the change-out has occurred. The notification must include a statement as to whether the unit being installed has been or will be reconstructed, as defined in 40 CFR §60.15.

4.4. Trading Scenarios

There were no trading scenarios requested by the facility.

4.5 Excess Emissions

PG&E GT-NW is required to follow the procedures in IDAPA 58.01.01.130-136 for excess emissions.

5. *REGULATORY ANALYSIS - EMISSIONS UNITS*

5.1 Cooper-Rolls Coberra Turbines

5.1.1. Emissions Unit Description

Unit 3B is a Cooper-Rolls Coberra 6000 natural gas-fired turbine equipped with a dry low emissions (DLE) combustor to control NO_x emissions. As natural gas is combusted in the turbine, PM_{10}, SO_2, CO, NO_x, VOCs, and HAPs are emitted. The facility's PTE is summarized in Tables 1 and 2 of this document. The stack parameters and output capacity for the turbine are listed below:

Unit 5C - Cooper-Rolls Coberra 6000

Stack Height:	42.0 feet
Stack Diameter:	9.6 feet
Stack Flow Rate:	375,000 acfm (average)
Stack Temperature:	900°F (average)
Output Capacity:	35,000 hp (ISO) (maximum)

5.1.2. Permit Requirement – Visible Emissions - [IDAPA 58.01.01.625][PTC No. 021-00013]

5.1.2.1. Applicability

Unit 3B is subject to the visible emissions standard in accordance with IDAPA 58.01.01.625.

For any alternative operating scenario, the replacement turbine is subject to the visible emissions standard.

5.1.2.2 Compliance Demonstration Method

Compliance with the visible emissions standard will be demonstrated by: requiring the exclusive use of natural gas in the turbine; requiring the permittee to monitor and record the amount of natural gas combusted in the turbine; and requiring quarterly facility-wide visible emissions inspections. Performance testing for visible emissions is not required by the OP because historical source test data shows there are no visible emissions from these emissions units. It is anticipated that the parametric monitoring is sufficient for compliance demonstration purposes.

5.1.2.3 Monitoring

The permittee is required to monitor the natural gas throughput monthly and annually.

5.1.2.4 Testing

Testing is not required so long as pipeline-quality natural gas is combusted in the turbine.

5.1.2.5 Recordkeeping

The permittee is required to record the natural gas throughput monthly and annually. In addition, the permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.07.a and b. The permittee is also required to retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period.

5.1.2.6 Reporting

Pursuant to IDAPA 58.01.01.322.08, the permittee is required to conduct sufficient reporting to assure compliance with all the terms and conditions of the Tier I OP. Submittal of such reports for any required monitoring is required at least every six months beginning six months after issuance of the Tier I OP and every six months thereafter. All reports must be certified in accordance with IDAPA 58.01.01.123.

Permit deviations including, but not limited to, excess emissions must be reported promptly by the permittee. If the deviation is an excess emission, the report must be submitted in accordance with the requirements of Sections 130-136. For all other deviations, the permittee is required to submit reports at least every six months. All instances of deviations from Tier I OP requirements that include monitoring, recordkeeping, and reporting must be clearly identified. The report must describe the probable cause of such deviations and any corrective actions or preventative measures taken. All reports must be certified in accordance with IDAPA 58.01.01.123.

5.1.3 Permit Requirement – Fuel-burning Equipment - [IDAPA 58.01.01.675]

5.1.3.1 Applicability

Unit 3B is subject to the fuel-burning equipment grain-loading standard in accordance with IDAPA 58.01.01.675.

For any alternative operating scenario, the fuel-burning equipment grain-loading standard applies.

5.1.3.2 Compliance Demonstration Method

With the combustion of natural gas in these emissions units, historical source test data shows that grain loading in the exhaust gas averages roughly two orders of magnitude less than the applicable standard (0.015 gr/dscf at 3% oxygen). Because this data shows that the standard will never be violated, compliance is demonstrated by requiring the exclusive use of natural gas in the turbine. In order to make this requirement enforceable, the permittee is required to monitor and record the amount of natural gas combusted in the turbine.

5.1.3.3 Monitoring

The permittee is required to monitor the natural gas throughput monthly and annually.

5.1.3.4 Testing

Testing is not required so long as pipeline-quality natural gas is combusted in the turbine.

5.1.3.5 Recordkeeping

The permittee is required to record the natural gas throughput monthly and annually. In addition, the permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.07.a and b. The permittee is required to retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period.

5.1.3.6 Reporting

Pursuant to IDAPA 58.01.01.322.08, the permittee is required to conduct sufficient reporting to assure compliance with all the terms and conditions of the Tier I OP. Submittal of such reports for any required monitoring is required at least every six months beginning six months after issuance of the Tier I operating permit and every six months thereafter. All reports must be certified in accordance with IDAPA 58.01.01.123.

Permit deviations including, but not limited to, excess emissions must be reported promptly by the permittee. If the deviation is an excess emission, the report must be submitted in accordance with the requirements of Sections 130-136. For all other deviations, the permittee is required to submit reports at least every six months. All instances of deviations from Tier I OP requirements that include monitoring, recordkeeping, and reporting must be clearly identified. The report must describe the probable cause of such deviations and any corrective actions or preventative measures taken. All reports must be certified in accordance with IDAPA 58.01.01.123.

5.1.4 Permit Requirement - NO_x Concentration - Unit 3B - [PTC No. 021-00013]

5.1.4.1 Applicability

As part of a previous PSD/BACT determination, PG&E GT-NW was required to equip Unit 3B with a DLE combustor to control NO_x emissions. NO_x emissions in the exhaust gas stream cannot exceed 42 parts per million by volume on a dry basis (ppmvd) annual average corrected to 15% oxygen, which is more stringent than the NSPS NO_x standard.

5.1.4.2 Compliance Demonstration Method

NO_x emissions from Unit 3B cannot exceed 42 ppmvd corrected to 15% oxygen. In order to demonstrate compliance with this limit, a source test is required one time per calendar year unless the results from the first source test or two subsequent source tests are less than 90% of the limit, in which case no further testing is required on Unit 3B during the permit term.

For any alternative operating scenario, NO_x emissions cannot exceed 42 ppmvd corrected to 15% oxygen. An initial source test is required within 180 days after startup to demonstrate compliance. Additional source testing is required one time per permit term unless the results from the first source test or two subsequent source test are less than 90% of the NO_x emission limit for the replacement turbine, in which case no further testing is required on the replacement turbine during the permit term.

5.1.4.3 Monitoring

The permittee is required to monitor the NO_x stack gas concentration during each source test. Per the May 8, 1996, custom fuel monitoring schedule approved by EPA Region X, nitrogen monitoring is waived for pipeline-quality natural gas. The monitoring schedule is contingent upon the use of pipeline-quality natural gas.

5.1.4.4 Testing

All source testing is to be conducted in accordance with 40 CFR 60.8, 40 CFR 60.335, and IDAPA 58.01.01.157.

5.1.4.5 Recordkeeping

The permittee is required to record the NO_x stack gas concentration during each source test, maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.07.a and b, and retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period.

5.1.4.6 Reporting

Pursuant to IDAPA 58.01.01.322.08, the permittee is required to conduct sufficient reporting to assure compliance with all the terms and conditions of the Tier I OP. Submittal of such reports for any required monitoring is required at least every six months beginning six months after issuance of the Tier I OP and every six months thereafter. All reports must be certified in accordance with IDAPA 58.01.01.123.

Permit deviations including, but not limited to, excess emissions must be reported promptly by the permittee. If the deviation is an excess emission, the report must be submitted in accordance with the requirements of Sections 130-136. For all other deviations, the permittee is required to submit reports at least every six months. All instances of deviations from Tier I OP requirements that include monitoring, recordkeeping, and reporting must be clearly identified. The report must describe the probable cause of such deviations and any corrective actions or preventative measures taken. All reports must be certified in accordance with IDAPA 58.01.01.123.

5.1.5 Permit Requirement-Standard for Sulfur Dioxide-[40 CFR 60.333(b)][PTC No. 021-00013]

5.1.5.1 Applicability

The permittee cannot burn any fuel which contains sulfur in excess of 0.8% by weight in Unit 3B in accordance with 40 CFR §60.333(b) and PTC No. 055-00033 (June 14, 2000).

5.1.5.2 Compliance Demonstration Method

Compliance is demonstrated by combusting pipeline-quality natural gas.

5.1.5.3 Monitoring

The permittee is required to monitor fuel sulfur content in accordance with the May 8, 1996, custom fuel compliance monitoring schedule and the most recent revision to the custom fuel monitoring schedule approved by EPA Region X. The monitoring schedule is contingent upon the use of pipeline-quality natural gas.

5.1.5.4 Testing

The permittee is required to analyze the fuel sulfur content in accordance with the May 8, 1996, custom fuel compliance monitoring schedule and the most recent revision to the custom fuel monitoring schedule approved by EPA Region X. The monitoring schedule is contingent upon the use of pipeline-quality natural gas.

5.1.5.5 Recordkeeping

The permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.07.a and b, and to retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period.

5.1.5.6 Reporting

Pursuant to IDAPA 58.01.01.322.08, the permittee is required to conduct sufficient reporting to assure compliance with all the terms and conditions of the Tier I OP. Submittal of such reports for any required monitoring is required at least every six months beginning six months after issuance of the Tier I operating permit and every six months thereafter. All reports must be certified in accordance with IDAPA 58.01.01.123.

Permit deviations including, but not limited to, excess emissions must be reported promptly by the permittee. If the deviation is an excess emission, the report must be submitted in accordance with the requirements of Sections 130-136. For all other deviations, the permittee is required to submit reports at least every six months. All instances of deviations from Tier I OP requirements that include monitoring, recordkeeping, and reporting must be clearly identified. The report must describe the probable cause of such deviations and any corrective actions or preventative measures taken. All reports must be certified in accordance with IDAPA 58.01.01.123.

5.1.6 Permit Requirement – Fuel Throughput Limit, Unit 3B - [PTC No. 021-00013]

5.1.6.1 Applicability

Per PTC No. 021-00013 (June 14, 2000), the maximum amount of natural gas that can be combusted in Unit 3B is 2,627 million standard cubic feet per any consecutive 12-month period (MMscf/yr).

5.1.6.2 Compliance Demonstration Method

Monitor and record fuel throughput.

5.1.6.3 Monitoring

The permittee is required to monitor the fuel throughput monthly and annually.

5.1.6.4 Testing

Testing is not required to demonstrate compliance with the fuel throughput limit.

5.1.6.5 Recordkeeping

The permittee is required to record the fuel throughput monthly and annually, maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.07.a and b, and retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period.

5.1.6.6 Reporting

Pursuant to IDAPA 58.01.01.322.08, the permittee is required to conduct sufficient reporting to assure compliance with all the terms and conditions of the Tier I OP. Submittal of such reports for any required monitoring is required at least every six months beginning six months after issuance of the Tier I operating permit and every six months thereafter. All reports must be certified in accordance with IDAPA 58.01.01.123.

Permit deviations including, but not limited to, excess emissions must be reported promptly by the permittee. If the deviation is an excess emission, the report must be submitted in accordance with the requirements of Sections 130-136. For all other deviations, the permittee is required to submit reports at least every six months. All instances of deviations from Tier I OP requirements that include monitoring, recordkeeping, and reporting must be clearly identified. The report must describe the probable cause of such deviations and any corrective actions or preventative measures taken. All reports must be certified in accordance with IDAPA 58.01.01.123.

5.1.7 Permit Requirement - Annual NO_x Emissions Rate Limit - Unit 3B - [PTC No. 021-00013]

5.1.7.1 Applicability

Per PTC No. 021-00013 (June 14, 2000), NO_x emissions from Unit 3B are limited to 197 T/yr.

5.1.7.2 Compliance Demonstration Method

In order to demonstrate compliance with the annual NO_x emissions rate limit for Unit 3B, a source test is required one time per calendar year unless the results from the first source test or two subsequent source tests are less than 90% of the NO_x emissions rate limit, in which case no further testing is required on Unit 3B during the permit term. Compliance or noncompliance with the annual NO_x emissions rate limit is demonstrated by using the following equation:

$$(X_a \text{ lb/hr})(8{,}760 \text{ hr/yr})(1 \text{ T}/2000 \text{ lb}) = X \text{ T/yr}$$

Where: X_a = average pound-per-hour NO_x emissions rate at full-load operating conditions measured during source testing.

For any alternative operating scenario, NO_x emissions from the replacement turbine cannot exceed 197 T/yr. An initial source test is required within 180 days after startup. Additional source testing is required one time per permit term unless the results from the first source test or two subsequent source test are less than 90% of the NO_x emission limit for the replacement turbine, in which case no further testing is required on the replacement turbine during the permit term. Compliance or noncompliance with the annual NO_x emissions rate limit is demonstrated by using the following equation:

$$(X_a \text{ lb/hr})(8{,}760 \text{ hr/yr})(1 \text{ T}/2000 \text{ lb}) = X \text{ T/yr}$$

Where: X_a = average pound-per-hour NO_x emissions rate at full-load operating conditions measured during source testing.

5.1.7.3 Monitoring

The permittee is required to monitor the pound-per-hour NO_x emissions rate for each source test.

5.1.7.4 Testing

All source testing is to be conducted in accordance with 40 CFR §60.8, 40 CFR §60.335, and IDAPA 58.01.01.157.

5.1.7.5 Recordkeeping

The permittee is required to record the pound-per-hour NO_x emissions rate for each source test, maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.07.a and b, and retain records of all monitoring and other requirements in the Tier I OP for the most recent five-year period.

5.1.7.6 Reporting

Pursuant to IDAPA 58.01.01.322.08, the permittee is required to conduct sufficient reporting to assure compliance with all the terms and conditions of the Tier I OP. Submittal of such reports for any required monitoring is required at least every six months beginning six months after issuance of the Tier I OP and every six months thereafter. All reports must be certified in accordance with IDAPA 58.01.01.123.

Permit deviations including, but not limited to, excess emissions must be reported promptly by the permittee. If the deviation is an excess emission, the report must be submitted in accordance with the requirements of Sections 130-136. For all other deviations, the permittee is required to submit reports at least every six months. All instances of deviations from Tier I OP requirements that include monitoring, recordkeeping, and reporting must be clearly identified. The report must describe the probable cause of such deviations and any corrective actions or preventative measures taken. All reports must be certified in accordance with IDAPA 58.01.01.123.

6. *INSIGNIFICANT ACTIVITIES*

The following emissions units and activities have been identified as insignificant activities in accordance with IDAPA 58.01.01.317.

6.1 Natural Gas-fired Boiler - IDAPA 58.01.01.317.01.b.i.(5)

This facility includes one natural gas-fired boiler used exclusively for space heating. It has a maximum rated heat input capacity of 1.7 MMBtu/hr. In accordance with IDAPA 58.01.01.317.01.b.i.(5), a combustion source, less than 5 MMBtu/hr, exclusively using natural gas, butane, propane, and/or LPG is identified as an insignificant activity for the purposes of the Tier I OP program. Insignificant activities are not specifically regulated in the Tier I OP drafted for this facility. Rather, they are subject to generally applicable permit requirements.

6.2 Emergency Generator - IDAPA 58.01.01.317.01.b.i.(5)

This facility includes one 500 hp, natural gas-fired emergency generator used for backup power in the event of a power failure. The generator's heat input capacity is approximately 1.3 MMBtu/hr. In accordance with IDAPA 58.01.01.317.01.b.i.(5), a combustion source, less than 5MMBtu/hr, exclusively using natural gas, butane, propane, and/or LPG is identified as an insignificant activity for the purposes of the Tier I OP program. Insignificant activities are not specifically regulated in the Tier I OP drafted for this facility. Rather, they are subject to generally applicable permit requirements.

6.3 Lubricating Oil System - IDAPA 58.01.01.317.01.a.i.(4)

The lubricating system primarily provides lubricating and cooling oil for the engine, gears, and bearings. It also supplies oil to the hydraulic, servo, and drive equipment. The components of a typical Solar Mars lube oil system include: the oil tank assembly, level/pressure alarm and shutdown switches, heaters and temperature sensors, main lube oil pump, auxiliary (pre/post) lube oil pumps, oil mist separator, control valves, check valves, relief valves and the various gages. In accordance with IDAPA 58.01.01.317.01.a.i.(4), storage tanks, reservoirs, and pumping and handling equipment of any size, limited to soaps, lubricants, lubricating oil, treater oil, hydraulic fluid, vegetable oil, grease, animal fat, aqueous salt solutions, or other materials and processes using appropriate lids and covers where there is no generation of objectionable odor or airborne particulate matter are identified as an insignificant activity for the purposes of the Tier I OP program. Insignificant activities are not specifically regulated in the Tier I OP drafted for this facility. Rather, they are subject to generally applicable permit requirements.

6.4 Natural Gas Pipeline and Fuel System - IDAPA 58.01.01.317.01.b.i.(30)

Natural gas contains some non-methane hydrocarbons. Both methane (methane and ethane) and VOCs would be emitted to the atmosphere from leaking valves, flanges, and pressure relief valves. The flanges, valves, and pressure relief valves that comprise the natural gas conveyance system in the pipe yard, as well as the fuel gas system, are sources of methane/ethane and fugitive VOC emissions. Natural gas is vented to the atmosphere during the turbine startup and shutdown procedure. Natural gas is used to spin up the turbines and is then vented to the atmosphere. When a turbine is shut down, the natural gas in the compressor and the length of pipe between the bypass valves (located in the valve skid) and the compressor is vented to the atmosphere (referred to as blowdown). The piping used to convey natural gas to and from the compressors includes valves, flanges, compressor seals, and pressure relief valves. A separate system brings fuel gas to the turbines and other natural gas combustion equipment.

In accordance with IDAPA 58.01.01.317.01.b.i.(30), an emissions unit or activity with emissions less than or equal to 10% of the levels contained in Section 006 of the definition of significant and no more than 1 T/yr of any HAP is identified as an insignificant activity for the purposes of the Tier I OP program. Insignificant activities are not specifically regulated in the Tier I Operating Permit drafted for this facility. Rather, they are subject to generally applicable permit requirements.

6.5 Fugitive Dust Emissions - IDAPA 58.01.01.317.01.a.i.(30)

Maintenance of paved streets and parking lots, including paving, stripping, salting, sanding, cleaning, and sweeping, are identified as insignificant activities for the purposes of the Tier I OP program, provided these activities are not related to the source's primary business activity, do not otherwise trigger a permit modification, and fugitive emissions are reasonably controlled as required by Sections 650-651, Insignificant activities are not specifically regulated in the Tier I OP drafted for this facility; rather, they are subject to generally applicable permit requirements.

7. COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION

7.1 Compliance Plan

PG&E GT-NW is required to submit a compliance plan indicating each emissions unit complies, and will continue to comply, with the terms and conditions of IDAPA 58.01.01.314.10. In addition, if there are additional terms or conditions applicable to the source, PG&E GT-NW will meet the terms and conditions on a timely basis as required by DEQ. Furthermore, PG&E GT-NW must submit a compliance schedule if the emissions unit is not in compliance.

7.2 Compliance Certification

PG&E GT-NW is required to submit a periodic compliance certification for each emissions unit in the form of an annual report, to DEQ and the EPA within 30 days after the end of each calendar year. In accordance with IDAPA 58.01.01.322.11, PG&E GT-NW must certify compliance with all terms and conditions of the permit including, but not limited to, the NO_x stack gas concentration (ppmvd at 15% oxygen), and natural gas throughput for Unit 3B.

7.3 Compliance Inspection

The facility may be inspected at least annually by DEQ. Copies of the annual inspection reports are located in the facility's source file at DEQ's state office in Boise, Idaho.

8. REGISTRATION FEES

The emissions fees for the permitted sources will be determined according to IDAPA 58.01.01.525-538.

9. AIRS FACILITY SUBSYSTEM

AIRS Point No. 010 SCC No. 20300202 Natural Gas Turbine

10. ACID RAIN PERMIT

This facility is not subject to the acid rain permitting requirements of 40 CFR §72 through 75.

11. RECOMMENDATION

Based on the Tier I OP application and review of the federal regulations and state *Rules*, the Technical Services Division recommends that DEQ issue a Tier I OP to PG&E Gas Transmission - Northwest for its Eastport Compressor Station located near Eastport, Idaho. The facility is regulated by the *Rules*. The facility is a major facility because the emissions of NO_X and CO are greater than 100 T/yr. The facility is not a designated facility; however, it is subject to federal NSPS.

SO/tk G:\AHW\Steve O\Program Office\PG&E, Eastport\P-9503-033-1 Tech Memo.doc

cc: Belinda McFarland, Technical Services
Tom Harman, Coeur d'Alene Regional Office
Laurie Kral, EPA Region 10
Montana Department of Environmental Quality
Washington Department of Ecology

APPENDIX A

PG&E Gas Transmission - Northwest Tier I Operating Permit/P-9503-033-1
AIRS/AFS Data Entry Form

11. AIRS DATABASE

AIRS INSTRUCTIONS:

AIRS/AFS FACILITY-WIDE CLASSIFICATION DATA ENTRY FORM

AIR PROGRAM / POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION A – Attainment U – Unclassifiable N - Nonattainment
SO_2	B		B			B	U
NOx	A	A	A			A	U
CO	A					A	U
PM_{10}	B					B	U
PM (Particulate)	B					B	U
VOC	B					B	U
THAP (Total HAPs)	B					B	U
			APPLICABLE SUBPART				

AIRS/AFS CLASSIFICATION CODES:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 ton-per-year (T/yr) threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.

AFS = AIRS Facility Subsystem
AIRS = Aerometric Information Retrieval System
B = Actual and potential emissions below all applicable major source thresholds.
C = Class is unknown.
CO = Carbon Monoxide
HAPs = Hazardous Air Pollutants
MACT = Maximum Achievable Control Technology
NESHAP = Nation Emission Standards for Hazardous Air Pollutants
NO_X = Oxides of Nitrogen
NSPS = New Source Performance Standards
PM = Particulate Matter
PM_{10} = Particulate Matter with an Aerodynamic Diameter of 10 Micrometers (um) or Less
PSD = Prevention of Significant Deterioration
SIP = State Implementation Plan
SM = Potential emissions fall below applicable major source thresholds **if and only if** the source complies with federally enforceable regulations or limitations.
SO_2 = Sulfur Dioxide
VOC = Volatile Organic Compound

APPENDIX B

PG&E Gas Transmission – Northwest Tier I Operating Permit/P-9503-033-1
Responses to Public Comments

August 29, 2001

STATE OF IDAHO
DEPARTMENT OF ENVIRONMENTAL QUALITY
RESPONSE TO PUBLIC COMMENTS
DRAFT AIR QUALITY TIER I OPERATING PERMIT
PG&E GAS TRANSMISSION - NORTHWEST, EASTPORT IDAHO COMPRESSOR STATION

Introduction

As required by IDAPA 58.01.01.364 (*Rules for the Control of Air Pollution in Idaho*), the Idaho Department of Environmental Quality (Department) provided for public notice and comment, including offering an opportunity for a hearing, a Tier I operating permit drafted for PG&E Gas Transmission - Northwest's (PG&E GT-NW), Eastport, Idaho natural gas compressor station (Station #3). Public comment packages, which included the application materials, and draft permit and technical memorandum, were made available for public review at the East Bonner County Public Library in Sandpoint, the Department's Coeur d'Alene Regional Office, and Department's State Office in Boise. The public comment period was provided from May 2, 2001 through June 1, 2001. PG&E GT-NW provided the only public comments regarding the air quality aspects of the draft permit. Those comments are provided below with the Department's response immediately following. No entity requested an opportunity for a hearing.

Public Comments and DEQ Responses

Comment 1: **Quarterly Inspections for Fugitive and Visible Emissions**

The draft Tier I Operating Permit requires GTN [PG&E GT-NW] to conduct quarterly facility-wide fugitive dust and visible emissions inspections (Facility-wide Conditions 1.4 and 1.8). These inspection requirements are monitoring and recordkeeping conditions to demonstrate the reasonable control of fugitive dusts and compliance with the visible emissions standard.

GTN is required to fire its units with natural gas exclusively (Condition 2.3). Additionally, GTN is required to maintain records of all fugitive dust complaints received and to take the appropriate corrective action necessary to control fugitive dust emissions. These fuel and recordkeeping requirements are adequate to effectively control and monitor the emissions of fugitive dust and visible emissions; therefore, no further controls are necessary. The quarterly inspection requirements included in the draft permit conditions 1.4 and 1.8 place an unnecessary burden on GTN; therefore, GTN requests they be removed.

Response to 1: The U. S. Environmental Protection Agency (EPA), Region 10, had considerable input into the development of the facility-wide general conditions for Idaho's Tier I operating permits. As part of its input, the EPA recommended that facility-wide inspections of all fugitive and point sources are required in order to show compliance with IDAPA 58.01.01.650 and 625, respectively. The frequency of each inspection is to be made on a case-by-case basis. These walk-around inspections do not have to be conducted according to an EPA standard reference method, but rather, are a see/no see inspection designed to alert the owner or operator of potential visible emissions problems.

In the case of PG&E GT - NW's (Eastport) facility, the Department recognizes that this facility is not manned continuously. Based on this fact, and the fact that the roadway within the facility boundary is covered with gravel and asphalt, the Department is requiring facility-wide inspections on a quarterly basis only. The Department presumes that maintenance personnel are at the facility, at least once per quarter, and they can conduct the inspection at that time and record the results in a log.

Comment 2: **Annual Engine Performance Testing**

GTN conducted the initial performance testing for the draft permits on August 9 & 15, 2000. This testing was performed to fulfill the testing requirement to be included in the draft operating permits. The performance tests demonstrated that the emissions were less than 90% of the permitted emission limits and therefor [sic] no further testing on those turbines should be required. GTN requests that permit condition 2.14.1 be modified to accept the testing performed in August 2000.

Response to 2: Due to a numbering error in the draft permits, Permit Condition 2.14.1 in the draft permit is now Permit Condition 2.15.1 in the proposed permit.

The Department recognizes that the performance test that was conducted at the Eastport compressor station within the past calendar year fulfills the performance testing requirements for this calendar year as mandated by this operating permit. Although the performance test conducted in August of 2000 will be allowed to fulfill the requirements of Permit Condition 2.15.1, the Department does not recognize this as necessitating a permit revision. GTN has simply fulfilled the requirement of Permit Condition 2.15.1.

Comment 3: **Like-Engine Exchange Initial Performance Test**

In order to provide reliable supply of natural gas to customers, GTN maintains an inventory of like-engines to replace units removed for repair or service. Turbines removed from service are typically replaced with a like-engine and returned to the manufacturer or overhaul facility for service. Upon completion of the service, the units are tested at the manufacturer or repair facility's location to demonstrate the unit meets the manufacturer's performance acceptance criteria (emissions, delivered horsepower, etc.) prior to being delivered to GTN for inventory replacement or installation.

Following the installation of a like-engine replacement, the draft Tier I Operating Permit requires GTN to conduct an initial performance test (Unit Specific Condition 2.11) to measure oxides of nitrogen (NO_x). The initial performance test must be conducted in accordance with the test methods and procedures in 40 CFR 60.8, 40 CFR 60.335, IDAPA 58.01.01.157, and Condition 1.15 of the permit. Performance source tests typically cost GTN between $6,000 to $10,000 for mobilization, source testing, and reporting. Additionally, source tests are performed once per year, unless the unit's emissions are less than 90% of the permitted limit. The requirement to perform an additional source test on a functionally equivalent unit places an unnecessary economic burden on GTN. GTN requests that the manufacturer's or repair facility's performance acceptance test be an acceptable alternative to the initial performance test required in draft permit condition 2.11. A copy of a manufacturer's performance acceptance test is attached.

Response to 3: Permit Condition 2.11 is designed to allow Station #3 the flexibility to install either a like- or unlike-replacement turbine provided the replacement turbine does not exceed the operating parameters listed in Permit Conditions 2.11. An initial performance test of the replacement turbine is required to assure compliance with the terms and conditions of the operating permit. The submitted performance acceptance test does not appear to have been conducted using the test methods and procedures contained in 40 CFR 60.335 to measure emissions. Unless the EPA and Department approve an alternative performance test method, DEQ cannot accept the submitted performance acceptance test in lieu of a standard EPA reference method.

It is not the Department's intention to require that PG&E Gas Transmission - NW conduct an additional performance test during the calendar year the replacement turbine is put into service. This is provided the replacement turbine demonstrates compliance with the terms and conditions of the Tier I operating permit during the initial performance test. In order to clarify this requirement, the language of Permit Condition 2.11 has been amended as follows:

"If a replacement turbine is installed, the Permittee shall conduct an initial performance test to measure oxides of nitrogen emissions in accordance with the test methods and procedures in 40 CFR 60.8, 40 CFR 60.335, IDAPA 58.01.01.157, and Condition 1.15 of this permit. Provided the replacement turbine demonstrates compliance with terms and conditions of this permit during the initial performance test, an additional performance test is not required during the calendar year the replacement turbine is put into service . . . ."

Please note that this response is not a substantive change to the draft Tier I operating permit that would necessitate another public notice and comment period.